Amendments to the Claims

This listing of the claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (currently amended) A communication system comprising a server ~~a message broker for~~ configured to transmit~~ting~~ a message from a first client system to a second client system, the ~~message broker~~ server comprising at least one message channel, a first channel adapter and a second channel adapter,

the first channel adapter being configured ~~operable~~ to:

receive a message from the first client system encoded in an Internet protocol and comprising content information and destination information,

read the destination information from the message, and send a push request to place the message in a message channel corresponding to the destination information,

the second channel adapter being configured ~~operable~~ to:

receive a message request from the second client system encoded in an Internet protocol and comprising source information

read the message request and identify a message channel corresponding to the source information,

send a pull request to the message channel,

generate a response comprising a time out response if no message is placed in the message channel within a predetermined time period, and

generate a response comprising at least the content information if a message is placed in the channel.

2-3.

4. (currently amended) A communication system according to claim 1 wherein the second channel adapter is configured ~~operable~~ to generate a response encoded in an Internet protocol format.

5. (previously presented) A communication system according to claim 1 wherein the first channel adapter and the second channel adapter are each implemented by a servlet.

6. (previously presented) A communication system according to claim 1 comprising an address information store wherein channel information corresponding to at least one of the destination information and source information is stored.

7. (currently amended) A communication system according to claim 1 comprising a bi-directional communication link, the ~~message broker~~ server comprising two message channels, each channel comprising a first channel adapter and a second channel adapter, such that the ~~message broker~~ server is configured ~~operable~~ to transmit messages from the first client to the second client system using one of the channels and from the second client system to the first client system using the other of said channels.

8. (previously presented) A communication system according to claim 7 wherein the first channel adapter of one of the channels and the second channel adapter of the other of the channels are provided by a common combined channel adapter module.

9. (previously presented) A communication system according to claim 1 wherein the message and the request are encoded in HTTP format.

10. (previously presented) A communication system according to claim 9 wherein the message comprises a HTTP POST request.

11. (previously presented) A communication system according to claim 9 wherein the message request comprises a HTTP GET request.

12. (Canceled)

13. (currently amended) A communication system according to claim 25 wherein the

message is encoded in HTTP format and transmitted to the ~~message broker~~ server using a HTTP POST request.

14. (previously presented) A communication system according to claim 25 wherein the first client system comprises a firewall, wherein the message is permitted to pass through the firewall.

15. (Canceled)

16. (currently amended) A communication system according to claim 26 wherein, where the response comprises the time out response, the receiver module is configured ~~operable~~ to generate an output comprising re-transmitting the message request to the server ~~message broker~~.

17. (currently amended) A communication system according to claim 26, wherein where the response comprises the content information, the receiver module is configured ~~operable~~ to generate an output comprising the content information.

18. (previously presented) A communication system according to claim 26 wherein the second client system comprises a firewall, wherein the message request and the response are permitted to pass through the firewall.

19. (previously presented) A communication system according to claim 18 wherein the message request and response are encoded using HTTP format and wherein the message request comprises an HTTP GET request.

20. (previously presented) A communication system according to claim 1 further comprising at least one client system.

21. (currently amended) A communication system according to claim 20 wherein the ~~message broker~~ server and at least one client system are connected via the Internet.

22. (previously presented) A method of transmitting messages from a first client system to a second client system comprising the steps of

receiving a message from the first client system encoded in an Internet protocol format and comprising content information and destination information corresponding to a message channel,

reading the destination information,

sending a push request to place the content information in a message channel corresponding to the destination information,

receiving a message request from the second client system encoded in an Internet protocol format and comprising source information corresponding to the message channel,

reading the message request to identify the message channel corresponding to the source information,

sending a pull request to the message channel,

generating a response comprising a time out response if no message is placed in the message channel within a predetermined time period, and

generate a response comprising at least the content information if a message is placed in the channel.

23-24. (Canceled)

25. (currently amended) A communication system comprising a first client system and a ~~message broker~~ server for transmitting a message from the first client system to a second client system,

the ~~message broker~~ server comprising at least one message channel, a first channel adapter and a second channel adapter,

the first channel adapter being configured ~~operable~~ to:

receive a message from the first client system encoded in an Internet protocol and comprising content information and destination information,

read the destination information from the message, and send a push

request to place the message in a message channel corresponding to the destination information,

the second channel adapter being configured ~~operable~~ to:

receive a message request from the second client system encoded in an Internet protocol and comprising source information

read the message request and identify a message channel corresponding to the source information,

send a pull request to the message channel, and

generate a response comprising a time out response if no message is placed in the message channel within a predetermined time period, and

generate a response comprising at least the content information if a message is placed in the channel,

the first client system further comprising a transmission module configured ~~operable~~ to transmit the message from the first client system to the server ~~message broker~~, the transmission module being configured ~~operable~~ to

receive message information comprising content information and destination information corresponding to a message channel,

generate the message comprising the message information encoded in an Internet protocol format, and

transmit the message to the ~~message broker~~ server for retrieval by the second client system from the message channel.

26. (currently amended) A communication system comprising a ~~message broker~~ server for transmitting a message from a first client system to a second client system, the communication system comprising a second client system,

the ~~message broker~~ server comprising at least one message channel, a first channel adapter and a second channel adapter,

the first channel adapter being configured ~~operable~~ to:

receive a message from the first client system encoded in an Internet protocol and comprising content information and destination information,

read the destination information from the message, and send a push

request to place the message in a message channel corresponding to the destination information,

the second channel adapter being configured ~~operable~~ to:

receive a message request from the second client system encoded in an Internet protocol and comprising source information

read the message request and identify a message channel corresponding to the source information,

send a pull request to the message channel, and

generate a response comprising a time out response if no message is placed in the message channel within a predetermined time period, and

generate a response comprising at least the content information if a message is placed in the channel,

the second client system comprising a receiver module configured ~~operable~~ to retrieve the message comprising content information from the ~~message broker~~ server sent by the first client system, the receiving module being configured ~~operable~~ to;

receive a message request comprising source information corresponding to the message channel

generate a message request encoded in an Internet protocol format in accordance with the source information,

transmit the message request to the server ~~message broker~~,

receive the response from said ~~message broker~~ server in accordance with the message request, and

generate an output.

27. (currently amended) A communication system comprising a first client system, a second client system and a ~~message broker~~ server for transmitting a message from the first client system to a second client system,

the ~~message broker~~ server comprising at least one message channel, a first channel adapter and a second channel adapter,

the first channel adapter being configured ~~operable~~ to:

receive a message from the first client system encoded in an Internet

protocol and comprising content information and destination information,

read the destination information from the message, and send a push request to place the message in a message channel corresponding to the destination information,

the second channel adapter being configured ~~operable~~ to:

receive a message request from the second client system encoded in an Internet protocol and comprising source information

read the message request and identify a message channel corresponding to the source information,

send a pull request to the message channel, and

generate a response comprising a time out response if no message is placed in the message channel within a predetermined time period, and

generate a response comprising at least the content information if the message is placed in the channel,

the first client system comprising a transmission module configured ~~operable~~ to transmit the message from the first client system to the ~~message broker~~ server, the transmission module being configured ~~operable~~ to;

receive message information comprising content information and destination information corresponding to a message channel,

generate the message comprising the message information encoded in an Internet protocol format, and

transmit the message to a ~~message broker~~ server for retrieval by the second client system from the message channel,

the second client system comprising a receiver module configured ~~operable~~ to retrieve the message comprising content information from the ~~message broker~~ server sent by the first client system, the receiving module being configured ~~operable~~ to;

receive a message request comprising source information corresponding to the message channel

generate a message request encoded in an Internet protocol format in accordance with the source information,

transmit the message request to the ~~message broker~~ server,

receive the response from said ~~message broker~~ server in accordance with the message request, and

generate an output.